

Table of Contents:

1. What are Extreme Heat Events (EHE)
2. Heat Alerts
 - 2.1 Pre-Alert
 - 2.2 Heat Alert
 - 2.3 Extreme Heat Alert
3. Heat Alert Response System (HARS) Notification Structure
4. Heat Alert Response System (HARS) Trigger Levels –Roles and Responsibilities
5. Heat Alert Task Sheets
 - 5.1 Shared Health Emergency Management
 - 5.2 Senior Leadership (Including SDO CEOs)
 - 5.3 Shared Health Communications (coordinated with SDO Communications)
 - 5.4 Shared Health Facility Management (coordinated with SDO Facilities Leads)
 - 5.5 Nutritional Supply Coordinator
 - 5.6 Community, Acute, LTC and Provincial Services leads
 - 5.7 Provincial and SDO Program/Services Directors
 - 5.8 Direct/Front Line Service Staff
 - 5.9 Provincial Patient/Resident/Client Flow Network
 - 5.10 Emergency Response Services and Acute Care Staff

1. What are Extreme Heat Events (EHE)?

An Extreme Heat Event (EHE) is a period of unusually hot temperature and/or high Humidex readings as compared to the typical regional average for that season.

Extreme heat events due to a changing climate are a growing public health risk in Canada and around the world.

A changing climate can mean longer and more intense extreme heat events that can be dangerous to human health.

Extreme heat can cause a range of heat-related illnesses and exacerbate certain chronic conditions. This includes minor problems, such as heat edema (swelling), heat rash, and heat cramps, as well as more severe illnesses such as heat syncope (fainting), heat exhaustion and, the most serious of these, heat stroke.

Older adults, children, pregnant women and physically active individuals are most at risk for heat-related illness.

Extreme heat events frequently cause death. Heat wave tragedies have killed more than:

- 595 people in British Columbia (2021)
- 280 people in Quebec (2010)
- 156 people in British Columbia (2009)
- 70,000 people in Europe (2003)
- 700 people in Chicago (1995)

References

Health Canada

[Extreme heat events: Overview - Canada.ca](#)

[Extreme Heat Events Guidelines: Technical Guide for Health Care Workers - Canada.ca](#)

2. Heat Alerts

There are 3 types or stages of Alerts. The type of Alert issued is based upon day-time temperature highs and lows and the number of days that these temperatures are expected to remain the same OR upon humidex levels and the number of days that the humidex is expected to remain at the same level.

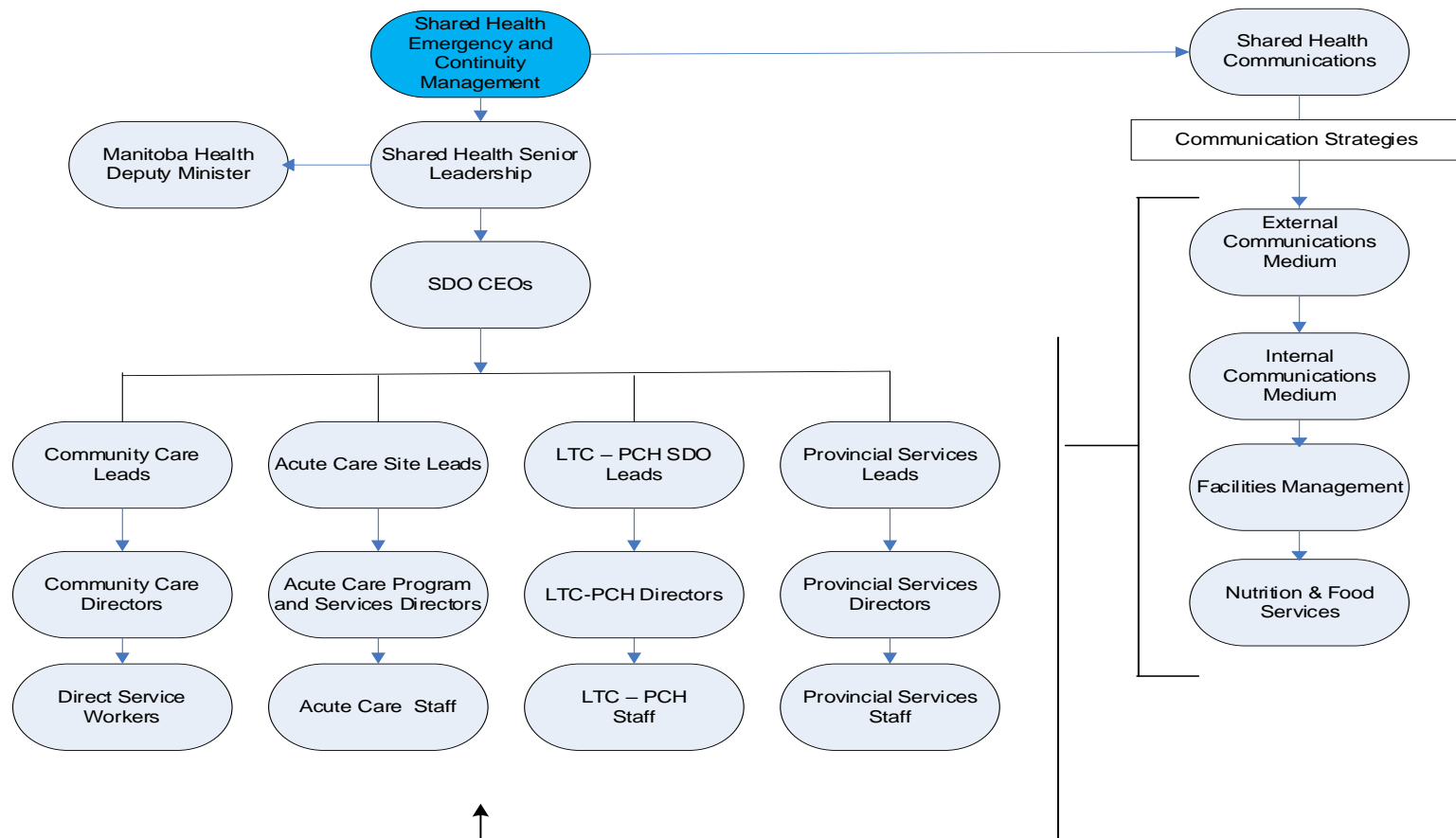
Alert types/stages are shown in the following chart:

Alert Stage	Daytime high and low		Humidex
Pre-Alert	Forecast of at least three days of a high of $\geq 32^{\circ}\text{C}$ and a low of $\geq 20^{\circ}\text{C}$	O R	Forecast of humidex with at least one day ≥ 37
Heat Alert	<p style="text-align: center;">Day ONE of a high of $\geq 33^{\circ}\text{C}$ and a low of $\geq 20^{\circ}\text{C}$</p> <p style="text-align: center;">PLUS forecast of at least 2 days with a high of $\geq 33^{\circ}\text{C}$ and a low of $\geq 20^{\circ}\text{C}$</p>	O R	<p style="text-align: center;">DAY ONE with humidex of ≥ 40</p> <p style="text-align: center;">PLUS forecast of at least one more day with humidex of ≥ 40</p>
Extreme Heat Alert	<p style="text-align: center;">Day TWO or more of a high of $\geq 33^{\circ}\text{C}$ and a low of $\geq 20^{\circ}\text{C}$</p> <p style="text-align: center;">PLUS forecast of at least 2 days with a high of $\geq 33^{\circ}\text{C}$ and a low of $\geq 20^{\circ}\text{C}$</p>	O R	<p style="text-align: center;">Day TWO with humidex of ≥ 40</p> <p style="text-align: center;">PLUS forecast of at least one more day with humidex of ≥ 40</p>

Emergency and Continuity Management

Heat Alert Response System (HARS)
Extreme Heat Event Plan

3. Notification Structure
Heat Alert and Response Plan



4. Heat Alert Response System Trigger Levels –Roles and Responsibilities

4.1 Pre-Alert: Preparing for Heat-Head Up Planning

4.1.1 Key Actions

Manitoba Health Public Health Emergency Preparedness Unit

- Notifies:
 - Shared Health Emergency and Continuity Management of pre-alert status.
 - Medical Officer of Health -Emergency Preparedness

Shared Health Emergency and Continuity Management (ECM)

- Notifies:
 - Shared Health Senior Leadership
 - Shared Health Communications
 - Identified partners in response, SDO EM Leads, stakeholders, etc.
- Consults
 - Environment Climate Change Canada on weather forecasts.
- Facilitates
 - Incident Command briefing of key decision-makers/response leaders regarding event context, surveillance information, and actions necessary

4.2 Heat Alert: “We have Heat – Activation of some heat responses”

Response Activities are subject to discretion of MB Health, Shared Health, SDOs and stakeholders depending on the situation and their responsibilities. Discussion of response actions will occur at partner meetings

4.2.1 Key Actions

- Actions under Heat Pre-Alert
- Advise health care sector leads
- Encourage surveillance of vulnerable populations

- Additional media releases -communications prepares enhanced/targeted messages
- Messaging via multiple media
- Key stakeholders (e.g. municipal authorities and SDOs) draft own messaging if required
- General recommendations to public about examples of cooling options
- Interventions as required (e.g. preparation for public events; provision of water, distribution of fans etc.) under the leadership of the appropriate authorities.

4.3 Extreme Heat Event: “We have a more significant heat problem – aggressive activation”

Response activities are subject to discretion of MB Health, Shared Health, SDOs and stakeholders. Discussion of response actions will occur at partner meetings

4.3.1 Key Actions

- Actions under Heat Pre-Alert and Heat Alert
- More formalized interventions using multiple partners
- Ongoing messaging including media interviews with Public Health as required
- Extension of hours of cooling areas/pools and transportation to cooling areas as required
- Opening of cooling centers as required under municipal authority’s leadership
- Health sector partners prompted to use own internal heat response plans
- Surveillance of and assistance to vulnerable populations including outreach by social services, NGOs, community-based health services, etc.
- Targeted messages extended to other populations such as workers, sports associations etc.

HARS Task Sheets

5.1 Shared Health Emergency Management	
Role	First point of emergency contact. Inform Shared Health Senior Leadership and Communications that an Alert level has been issued and advise upon their request and provide information on resources available.
Response-Position Tasks	<p>Provide all information that is available/current and from various reliable sources.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Assist Senior Leadership to inform response coordinators. <input type="checkbox"/> Collect reports from all coordinators and ensure all relevant status updates are given to senior Leadership. <input type="checkbox"/> Advise Senior Leadership as required or requested. <input type="checkbox"/> If the need arises, bring in external resources or partnerships with external agencies. <input type="checkbox"/> Provide an evaluation of response to Senior Leadership
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested. <input type="checkbox"/> Follow-up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks <input type="checkbox"/> Provide guidance where needed or requested. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Vulnerable populations will be feeling the effects of heat at level one therefore it is important to take pre-alerts as serious as extreme heat alerts <input type="checkbox"/> Each activation has the potential to refine the process and improve the response, therefore it is also important to encourage record keeping. <input type="checkbox"/> Debriefing after activation should be done as soon as possible; periods between activations may be short. <input type="checkbox"/> Collecting information and keeping records is recommended to help with evaluation on the response. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)

5.2 Senior Leadership (Including SDO CEOs)

Role	Responsible for activating a response once Alert level has been received.
Response – Position Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Inform all coordinators that a response is required <input type="checkbox"/> Bring in Communications to start HARS messaging on all digital media. <input type="checkbox"/> Receive updates from all coordinators to reevaluate situations within the effected SDO
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Arrange briefings at appropriate intervals to ensure updated information. <input type="checkbox"/> Follow up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks. <input type="checkbox"/> Provide guidance where needed or requested. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate).
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Vulnerable populations will be feeling the effects of heat at level one therefore it is important to take pre-alerts as serious as extreme heat alerts. <input type="checkbox"/> Each activation has a potential to refine the process and improve the response therefore it is also important to encourage record keeping. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)

5.3 Shared Health Communications (coordinated with SDO Communications)

Role	During an EHE heat factsheets would be posted online for the public to access. Responding to media requests in consultation with Senior Leadership.
Response – Position Tasks	<input type="checkbox"/> Increased information about heat posted on websites, social media. <input type="checkbox"/> Response to media requested under the direction of Senior Leadership
Response – Generic Tasks	<input type="checkbox"/> Attend briefings as requested. <input type="checkbox"/> Follow up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks. <input type="checkbox"/> Provide guidance where needed or requested. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<input type="checkbox"/> Continue providing heat information for at least 3 days after the heat has ended as vulnerable populations are still under risk. <input type="checkbox"/> Be advised that giving the media daily numbers on heat casualties may not be possible since this data takes longer to interpret. <input type="checkbox"/> Bridging communications gaps to direct/frontline workers is vital. All direct/frontline workers should be encouraged to be vigilant for reports or information regarding the course of action to be taken during an event. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets).

5.4 Shared Health Facility Management (coordinated with SDO Facilities Leads)

Role	Assist facilities and community sites in maintaining the integrity of their physical facilities to the best level. Assist facilities and community sites in providing adequate environmental controls to perform the medical service.
Response – Position Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Deliver a preliminary report on the physical status of Provincial and SDO facilities and/or community sites/occupancies affected, if available. <input type="checkbox"/> Assist coordination for possibility of evacuation or the relocation of medical services outside their existing structures, if requested by senior leadership. <input type="checkbox"/> Receive continually updated reports from Facility support staff.
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested. <input type="checkbox"/> Regularly report status/completion of given tasks. <input type="checkbox"/> Follow up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks. <input type="checkbox"/> Document information on individuals positions log. <input type="checkbox"/> If completed tasks, assist others with theirs. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Upkeep of air conditioning units should be maintained. Surveillance of air conditioning units during an event would be recommended. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)

5.5 Nutritional Supply Coordinator

Role	Organize food and water storage, and alternative preparation methods/meals.
Response – Position Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Advise the assessment of temperatures within kitchens and employ alternative meal plans which involve creating minimum heat in kitchens. <input type="checkbox"/> Ensure food is stored appropriately and keep surveillance on cooling units for breakdown in which case find alternative storage. <input type="checkbox"/> Ensure kitchen staff are well hydrated and take appropriate breaks. <input type="checkbox"/> Prepare for requests of extra water being disturbed throughout the facility to patients/residents and staff. <input type="checkbox"/> Report any breakdown of cooling units.
Response Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested. <input type="checkbox"/> Follow up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks. <input type="checkbox"/> Provide guidance where needed or requested. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate).
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> An Alternative Meal Plan would be providing meals that do not produce extra heat for the kitchen staff to be working in or then providing a hot meal on a hot day to clients or patients. <input type="checkbox"/> The Alternative Meal Plan does not have to be a formal written plan but more so an awareness of providing suitable alternative meals. <input type="checkbox"/> Awareness of approaching heat periods will mean being able to prepare alternative meal plans. <input type="checkbox"/> During an extreme heat event consider meals that will take a minimum amount of heat to be produced in the kitchen and that hot meal do not contribute to making residents or patients warmer. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets).

Emergency and Continuity Management

Heat Alert Response System (HARS)
Extreme Heat Event Plan

5.6 Community, Acute, LTC and Provincial Services leads	
Role	Responsible for monitoring operations components of the HARS plan during the course of the Extreme Heat Event (EHE). Assist in organizing and coordinating the relevant operations response.
Response – Position Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Maintain awareness of the situation of the relevant services, personnel, and/or facility (ies) involved with the response. <input type="checkbox"/> With the approval of senior leadership, liaise with the relevant SDO program/services leads. <input type="checkbox"/> Participate or assist, as necessary, in the development of action plans. <input type="checkbox"/> Understand the operations, capabilities, and resources involved with all operations, personnel, and/or facility(ies) that may be involved.
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested. <input type="checkbox"/> Follow up on delegated tasks. <input type="checkbox"/> Remain aware of the situation. <input type="checkbox"/> Forecast potential tasks and risks. <input type="checkbox"/> Provide guidance where needed or requested. <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Bridging communications gaps to direct/frontline workers is vital. All direct/frontline workers should be encouraged to be vigilant for reports or information regarding the course of action to be taken during an event. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see fact sheets)

Emergency and Continuity Management

**Heat Alert Response System (HARS)
Extreme Heat Event Plan**

5.7 Provincial and SDO Program/Services Directors	
Role	Raise awareness within their respective sector of the heat event, provide guidance and support during the event. Ensure resources are in place to ensure high risk clients are monitoring closely while keeping awareness on all clients for symptoms of heat illness.
Response – Position Tasks	<input type="checkbox"/> Maintain awareness of the situation. <input type="checkbox"/> Assist in problem solving where clients’ health becomes a concern. <input type="checkbox"/> Assist in coordination of resources.
Response – Generic Tasks	<input type="checkbox"/> Attend briefings as requested <input type="checkbox"/> Regularly report status/completion of given tasks <input type="checkbox"/> Follow up on delegated tasks <input type="checkbox"/> Remain aware of the situation <input type="checkbox"/> Forecast potential tasks and risks <input type="checkbox"/> Document information on individuals positions log <input type="checkbox"/> If completed tasks, assist others with theirs <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<input type="checkbox"/> It is important to understand the effects of heat on vulnerable populations, as well as understand that heat can affect even those who would not be considered high risk. Although more emphasis is placed on high risk clients in the community, consideration must be given to all patients/resident/clients. Active clients could be at risk especially if they do not recognize that they are at risk and fail to take the necessary precautions. Clients with Social-economic challenges are also at greater risk since they may lack the funding to use air conditioner or able to purchase portable fans. <input type="checkbox"/> Consideration could be given on opening “cooling centers” to help those in the community are vulnerable.

5.8 Direct/Front Line Service Staff	
Response – Position Tasks	<p>During an alert the direct/front line services staff shall take the following actions during an Extreme Heat Event (EHE)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Surveillance of high-risk patients/residents/clients for symptoms of heat illness. <input type="checkbox"/> Providing patients/residents/clients with information (or where to find information (i.e. online) of protecting themselves from heat risk. <input type="checkbox"/> Reporting any home/facility that is over heated <input type="checkbox"/> Refer to guide sheets within HARS toolkit for actions to be taken at each type of Alert.
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested <input type="checkbox"/> Follow up on delegated tasks <input type="checkbox"/> Remain aware of the situation <input type="checkbox"/> Forecast potential tasks and risks <input type="checkbox"/> Provide guidance where needed or requested <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Patients/residents/clients with chronic conditions will be the most vulnerable; however, the environment of the patients/resident/clients with less severe conditions could also increase their risk to a greater level. It is important to keep surveillance of all patient/resident/client environments and assist with providing risk reducing information where possible or for more complex situation discussing the situation with supervisors promptly. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)

5.9 Provincial Patient/Resident/Client Flow Network	
Role	Responsible for monitoring impacts the EHE may have on patient/resident/client flow. Assist in monitoring patient flow/discharge and ensuring safety of patients/residents/clients.
Response – Position Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Maintain awareness of the situation of the relevant SDOs involved with the response <input type="checkbox"/> Participate or assist, as necessary, in the development of action plans in SDOs <input type="checkbox"/> Understand the operations, capabilities, and resources involved with SDO facilities, including patient/resident/client capacity.
Response – Generic Tasks	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested <input type="checkbox"/> Follow up on delegated tasks <input type="checkbox"/> Remain aware of the situation <input type="checkbox"/> Forecast potential tasks and risks <input type="checkbox"/> Provide guidance where needed or requested <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
Considerations	<ul style="list-style-type: none"> <input type="checkbox"/> Although SDO facilities may be able to cope with the heat due to air conditioning, information should be provided to those patients/residents/clients being discharged who have been identified as being vulnerable to heat illness. <input type="checkbox"/> Staff should ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)

5.10 Emergency Response Services and Acute Care Staff

<p>Response – Position Tasks</p>	<p>During an extreme heat alert Emergency Response Services and Acute Care staff shall take the following actions during an Extreme Heat Event (EHE)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Surveillance of patients who are seeking treatment for symptoms of suspected heat illness. <input type="checkbox"/> Providing all patients with information (or where to find information (i.e. online) of protecting themselves from heat risk. <input type="checkbox"/> Refer to guide sheets within HARS guide sheets for actions to be taken at each type of Alert.
<p>Response – Generic Tasks</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Attend briefings as requested <input type="checkbox"/> Follow up on delegated tasks <input type="checkbox"/> Remain aware of the situation <input type="checkbox"/> Forecast potential tasks and risks <input type="checkbox"/> Provide guidance where needed or requested <input type="checkbox"/> Consider personal welfare and that of others (ensure hydration, breaks, and handover as appropriate)
<p>Considerations</p>	<ul style="list-style-type: none"> <input type="checkbox"/> An extreme heat event effects will last longer then the high temperatures, it is the days following a period of extreme heat that the majority of the heat illness cases will appear. <input type="checkbox"/> Staff should shall ensure they take care of themselves during an EHE to avoid getting heat illness and follow recommendations (see factsheets)